

Product description

The series ORACAL® 961, 961RA and ORAJET® 3961, 3961RA Premium PVC cast films and the ORAJET® 3106SG calendared high performance Polymer PVC film distinguish themselves by their adhesive strength and have been developed specifically for styling of motorhomes, campers and caravans with highly structured, porous, rough and apolar substrates. The adhesion properties are characterised by high adaptability to the substrate structure (hammer finish profiles).

General requirements

Our current Processing Guidelines (accessible at: www.orafol.com/gp/europe/en/support) in terms of application, care and use of ORAFOL® Caravan films must be adhered to. Experience shows that, failing this, especially the maximum service life cannot be assured.

ORAFOL® Caravan films should be applied exclusively by qualified specialist staff (i.e. trained and experienced technical advertising staff or technicians).

Service life

Service life given in the technical data sheets represents the maximum service life, achievable only for exposure to vertical outdoor weathering under normal central European environmental conditions.

The information on maximum expected service life will not in general constitute a basis for claims under guarantees, warranties or for other claims. The information provided is based on practical experience under natural artificial and natural weathering under standard conditions and is not transferrable in principle to the maximum expected service life for all vehicles, due to the range of possible influences (additional mechanical and chemical impacts, among other).

Please refer to the table at

http://www.orafol.com/tl_files/content/downloads/applicationinstructions/en/Information_CarWrapping.pdf

for details on climatic service life categories.

Preparations

For optimal results, please follow the preparation guidelines below before applying to vehicles:

Inspect the vehicle surface

ORAFOL® films recommended for vehicle lettering or decoration are supplied with an adhesive balanced in terms of composition and adhesive strength and designed to ensure that the films will not lift or damage vehicle paintwork, provided the latter has been professionally applied and is fully cured. ORAFOL® Caravan films should not be applied unless the vehicle paintwork fully meets these quality requirements. Please also ensure that vehicle paintwork complies with OEM specifications. In case of doubt, please consult the vehicle manufacturer or a specialist paint shop before application. Inspect the paintwork of the vehicle to ensure there is no damage due to rust, fire, scratches, grit, age-related embrittlement or similar influences.

Do not apply to freshly or partially painted vehicle surfaces unless the paintwork is fully cured.

Do not apply to external stainless steel or crude steel.

Selecting the film type

The next step constitutes the selection of the appropriate film type for your application.

- a) Suitability for application to difficult 3D geometries and rivets, with the advantage of excellent suitability for hot deep drawing methods application: Cast film type.
- b) ORAJET® 3106SG for application to vehicle parts without distinct 3D structure, non-polar and rough or porous substrates; not recommended for hammer finish substrates.

When in doubt, please contact your specialist dealer.

Note:

By nature, lighter shades and coloured metallic shades have a lower opacity (covering power) than dark shades. Dark substrates may thus change the colour impression of ORAFOL® Caravan films with light or coloured metallic shades. Please ensure in advance that the selected ORAFOL® Caravan film will offer the results you need.

Inspect the selected ORAFOL® colour film

Before application, inspect your selected ORAFOL® Caravan film for visible defects. Do not apply a film with visible defects found during prior checks. Please in such cases contact your specialist dealer.

We explicitly point out that we will not accept claims based on defects found before application if the ORAFOL® Caravan film has already been applied. Use only ORAFOL® films of the same batch (see batch number printed on the back of the film, at the edge) for application on an object. The use of ORAFOL® films from different batches on an object, or in combination with a product from another manufacturer is not permitted, since this may negatively affect the application and results.

Save an unused sample of the selected ORAFOL® Caravan film (approx. 20 x 30 cm), with complete rear edge markings, for documentation purposes.

Prepare the vehicle

Prepare the vehicle as follows prior to application:

Take the vehicle to a car wash before application (no manual cleaning). Select a cleaning programme that uses no wax. The vehicle must be completely clean and dry when applying the film.

Inspect the vehicle surfaces and edges for preservation wax or polish residuals. Remove any residues of preservation wax or polish using exclusively silicone-free and citrus-based industrial detergents. Surfaces with stubborn stains may in addition be cleaned with a commercially available insect or tar remover.

Never use detergents that deploy nanotechnology to establish nano-sealing or nano-coating on the substrate to be cleaned. Please observe manufacturer's instructions in this respect.

After this, clean all surfaces to which the film will be applied with ORAFOL® Pre-wrap surface cleaner. Do not use spirits. Make sure that any remaining detergents will be thoroughly and completely removed.

Finally ensure that all vehicle surfaces, edges, beads, hollows and joints are completely dry. Carefully remove remaining humidity under rubber seals in particular.

Application of ORAFOL® films

The film is applied under dry conditions.

Wet application is possible for partial decorations (e.g. racing stripes) on even or slightly curved surfaces, but only with films without micro-structured adhesive! Films with micro-structured adhesive (*RapidAir*®) are generally not suitable for wet application.

Required tools

The following tools are absolutely necessary for application:

- Soft hand roller
- Industrial blow-drier with electronic temperature display
- Heat resistant gloves
- Infrared thermometer
- Film knife, paper knife or scalpel
- Transfer tape

Application conditions

Apply ORAFOL® Caravan films exclusively in clean, dust-free and well-lit rooms (rising or assembly platforms may be useful).

Ensure that the vehicle surface temperature is above the minimum specified in the data sheet of the selected ORAFOL® Caravan film. The best results are achieved with vehicle surface temperatures between +21° C and +23° C. Use an infrared thermometer to easily measure the vehicle surface temperature.

Trial application

A trial application will be absolutely necessary after cleaning the vehicle and before any final application. Check the ORAFOL® Caravan film final adhesion 24 hours after the trial application. Repeat preparatory cleaning should the ORAFOL® Caravan film adhesion be unsatisfactory and/or should air bubbles develop under the film.

Weak final adhesion of the ORAFOL® Caravan film may result if detergents using nanotechnology were used for (preparatory) cleaning of the vehicle or vehicle parts, establishing nano-sealing or nano-coating of the substrate. Preparatory cleaning should in this case be repeated, followed by another trial application.

Application method

Start application at one of the top outside corners and continue in line to the other side as follows:

Use a blow drier to warm up the film in front of the hand roller until it is ductile. The film should not yet be applied to the substrate at this stage. Overheating will damage the film. If, on the other hand, the film is not warm enough it will not be sufficiently ductile.

Then use the hand roller with a soft, temperature-resistant foam roll to roll on the film applying firm pressure (a wiper is not recommended for the application of a film to hammer finish substrates). Proceed slowly and evenly. The most common application error is rolling on the film too quickly.

Use this method to roll on the film up to the edge. Roll the hand roller approx. 5 cm downward and repeat the above steps until the film is fully in place.

Important notes

- The application method is applicable to smooth and structured (RA) adhesive coatings.
- Use an infrared thermometer to measure the accurate substrate temperature.
- Move constantly when working with the blow drier and not too closely to the hand roller. Failing this, the ORAFOL® film or the roller may be damaged.
- Should tiny air bubbles (< 5 mm) remain underneath the applied ORAFOL® film, experience shows that these will diffuse through the film over a few days to three weeks, depending on ambient temperature. Larger air bubbles must be punctured with a needle or sharp scalpel and the air rolled out. Pricking is not necessary on structured adhesive coatings, since the air will escape through air ducts.
- Newly printed solvent digital print media must generally be spread out to dry for at least 72 hours, irrespective of the type of film. Heed the relevant information in the current digital print media Processing Guidelines (accessible at: http://www.orafol.com/tl_files/content/downloads/applicationinstructions/de/Hinweise_Digitaldruckmaterialien.pdf). Lamination with 290 is recommended.
- Application restrictions: Films applied slanting should not be exposed to snow. Continuous thawing and re-freezing of the snow/ice on the edge of a film will create strong, expanding and contracting forces that may over-stress the adhesive.

Post-application

Experience shows that ORAFOL® Caravan film will reach optimal final adhesion after three days. Do not take the vehicle through a car wash before such time. To protect the service life of ORAFOL® Caravan film and also to protect from the negative impact of regular cleaning on the ORAFOL® Caravan film and the vehicle, clean the vehicle only manually or take it through a car wash that does not use brushes (only textiles) or a hot wax programme. ORAFOL generally recommends regular manual cleaning and maintenance using ORACAL® cleaning and care products developed especially for full vehicle ORAFOL® film applications, available as complete kits for glossy or for matt film surfaces. The mild, yet highly effective cleaning and maintenance products are formulated specifically for film surfaces with varying sensitivity.

ORAFOL furthermore expressly recommends initial impregnation of the decorations directly after the applications or before first use of the vehicle, using ORACAL® Long-lasting sealant, contained in the relevant cleaning and care sets for glossy and matt film surfaces. Cleaning and maintenance will typically be required at shorter intervals, depending on duration and frequency of use.

Our experience shows that cleaning vehicles with film coatings using high pressure cleaners or aggressive chemicals or solvents (e.g. acetone, lacquer thinners) will normally damage the film and possibly also the paint, or reduce the adhesion of the film, and should thus be strongly discouraged. When in doubt, please contact our Customer service.

The ORAFOL® conditions for care and use should be handed to the customer and explained when his vehicle with applied ORAFOL® Caravan film is delivered
(http://www.orafol.com/tl_files/content/downloads/careinstructions/de/PNB_CarWrapping_de.pdf).

Removal of ORAFOL® colour films

ORAFOL® Caravan films have high quality adhesive properties with permanent final adhesion. It is possible that adhesive material will remain on the substrate when a film is peeled off. This may, however, be removed with a silicone-free citrus-based industrial cleaning agent.

ORAFOL® Caravan films are hard to remove from the substrate after application. The relevant ambient and substrate temperatures must be maintained.

ORAFOL does not guarantee the effectiveness of the removal of films.

Notes on warranty

Warranty will be null and void and liability excluded unless the Processing Guidelines and conditions of use and care are followed.

The service life of the applied ORAFOL® Caravan film is essentially determined by strict adherence to the Processing Guidelines and the conditions of use and care. Exclusively qualified specialist staff (i.e. trained and experienced technical advertising staff or technicians) shall be allowed to process (apply and remove) the films.

The qualified specialist staff carrying out the application will be responsible for the quality of work. The owner of the vehicle with applied film shall be responsible for compliance with the conditions of use and care. The information provided in these Processing Guidelines is based exclusively on our current know-how and experience. It constitutes neither an agreed property nor an assurance of certain characteristics or warranty of properties and service life of our ORAFOL® Caravan film.

ORAFOL will conclude project-related warranty agreements with verifiably qualified application technicians and advertising companies.

Other applicable documentation:

Processing Guidelines for the application of film to vehicles

http://www.orafol.com/tl_files/content/downloads/applicationinstructions/en/Information_CarWrapping.pdf

Maintenance and usage terms for films applied to vehicles

http://www.orafol.com/tl_files/content/downloads/careinstructions/en/PNB_CarWrapping_en.pdf

Application instructions on ORAFOL® Plotter materials

http://www.orafol.com/tl_files/content/downloads/applicationinstructions/en/Information_PlotterMaterials.pdf

Application instructions on ORAFOL® Digital printing materials

http://www.orafol.com/tl_files/content/downloads/applicationinstructions/en/Information_DigitalPrintingMaterials.pdf

Oranienburg, May 2021

ORAFOL Europe GmbH
Orafolstraße 1, D-16515 Oranienburg

Tel.: +49 (0) 3301 864 0
Fax: +49 (0) 3301 864 100
graphic.innovations@orafol.de